

whether or not the property of yielding a fine curd is wholly due to the starch in solution, and, if so, what per cent. of starch is desirable; fourth, what is the value of certain modifications of the method; and fifth, what is the effect of lime-water and albumin-water upon the casein curd.

The conclusions of his study are summarized as follows:

1. Dilution of milk with cereal decoctions of proper strength renders the casein curd much more fine, soft, and digestible than simple dilution with water. There is no difference in the action of various cereals, such as barley, oats, rice, and wheat.

2. The above property is due mainly, if not wholly, to the starch in solution. The most desirable amount of starch in the milk mixture for practical use is approximately $\frac{1}{2}$ per cent.

3. Diastase, by converting the starch into dextrine and maltose, promptly lessens and removes the action of cereal waters upon casein. Its addition, therefore, is not a practical measure when the action upon the curd is desired.

4. Albumin-water has no practical value as a diluent of milk.

5. Lime-water added to milk has no more effect than water upon the character of the curd produced in the animal stomach.

The Pathogeny of Night-terrors—RAY (*Revue mensuelle des Maladies de l'Enfance*, May, 1901, p. 217) reaffirms the conclusions of his earlier studies on this subject (*Jahrbuch für Kinderheilkunde*, N. F., lld. xlv.). The views of various authorities as to the etiology of night-terrors in children are by no means in accord. Some consider these attacks as a symptom of another disease, as of an intestinal affection, for example; others believe that they constitute a disease sui generis, an idiopathic affection of the brain; while yet a third class hold that there are two forms, one primitive, another secondary. Ray maintains that the phenomenon is developed and is always determined by an obstacle to respiration and hæmatosis, which is either direct or of reflex origin. Both forms are simply the effect of a slow and prolonged intoxication by carbonic acid. In the attack all the symptoms of a slow poisoning by carbonic acid are reproduced—suffocation, loss of consciousness, with hallucinations, followed by amnesia after recovery, and enfeeblement of muscular motility. The slow onset of this intoxication explains why the attacks never commence until three or four hours after the child has gone to sleep. Another state which results from the same cause, but exhibits symptoms of less intensity, is the nightmare of adults. The child does not raise himself quickly, but in a maladroit fashion, and cries without being able to articulate intelligible words; the tongue is rigid, and its movements are made with difficulty; when taken up in the mother's arms the child's limbs seem heavy and are moved very slowly against the body. All these signs are the result of a paresis of the muscles. As soon as he can speak he seems oblivious of what is passing on about him; he does not speak of anything but his hallucinations, and after a certain time which suffices to supply the want of oxygen and to purify the blood of its surcharge of carbonic acid, he asks simply to be put back in bed to continue his interrupted slumber.

According to the author's observation the susceptibility to night-terrors is not increased by the nervousity of the child; but the tendency seems to be

in almost direct proportion to the intensity of obstruction to nasal respiration. Children with adenoid vegetations are almost always restless during sleep. They turn and twist constantly during the night, and very often suffer from night-terrors. The same condition occurs when nasal respiration is interfered with by other obstacles, such as a tumor, a foreign body, or even a simple rhinitis. A confirmatory circumstance is that adenoid vegetations are particularly frequent at an age at which night-terrors are most frequent—that is, from three to ten years. From ten years to fifteen years both diminish in frequency. Moreover, both nocturnal pavor and adenoid growths are more frequently encountered in girls than in boys.

Carbonic-acid intoxication also produces the fright and hallucinations observed with children during the fitful slumber of an attack of pneumonia, pleurisy, angina, or bronchitis. In children who are subject to night-terrors even the slightest obstruction to nasal breathing suffices to precipitate an attack, a coryza or the mere presence of crusts obstructing the already narrowed passages being sufficient to cause it.

In the cases produced by intestinal disturbance, an overloaded stomach, or intestinal worms, it is difficult at first sight to explain a carbonic-acid intoxication. But here it suffices to remember that even according to Silbermann, who considers the affection as a disease sui generis, symptomatic night-terrors would be a reflex neurosis of the termination of the pulmonary vagus starting from the gastric terminals, a reflex which produces dyspnea and sensations of suffocation. Both forms of the affection, therefore, result from the same cause, and there is no ground for distinguishing an idiopathic and a symptomatic form, since both are symptomatic of a carbonic-acid intoxication, direct in one case, indirect by reflex action in the other.

THERAPEUTICS.

UNDER THE CHARGE OF

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Hydrophobia and the Pasteur Methods.—DR. C. W. DULLES speaks of the early trumpeting of the Pasteur method advocates and the development of institutes for the treatment of the disease. He makes a strong and logical arraignment of the early figures, showing that they were founded on the most flimsy sort of grounds, and from an analysis of recent statistics shows that the mortality from hydrophobia in France, with its institute, is thirty times as great as that in Germany, without such treatment methods, the ratio of affected dogs being, of course, included in this comparison. In